



International Journal of Innovative Research in Computer and Communication Engineering

(An ISO 3297: 2007 Certified Organization)

Website: www.ijircce.com

Vol. 5, Issue 2, February 2017

Providing Effective Feedback and Appraisal System for Institute

P.N. Shejwal¹, Mayur Deokar², Akshay Dhawale², Tushar Gade²

Asst. Professor, Dept. of I.T., JSPM's BSIOTR, Savitribai Phule Pune University, Maharashtra, India¹

B.E. Student, Dept. of I.T., JSPM's BSIOTR, Savitribai Phule Pune University, Maharashtra, India²

ABSTRACT: The research aims to Establishing a set of scientific performance evaluation system is imperative. The study may help to identify the strengths and weaknesses of the faculty members based on the positive and negative feedback of the students. The application of Feedback in the appraisal of academic affairs management personnel is also an important content of the structural reform of college personnel management system. It describes the meaning, principles, procedures and significances of feedback, so as to further improve and perfect the appraisal system of college academic affairs management. An employee whose performance is not examined and enhanced does not lead to appraisal. Throughout the Globe the performance appraisal system has been utilized as a method of evaluating an employee's job performance.

KEYWORDS: Data mining, Feedback System, Performance Appraisal.

I. INTRODUCTION

The performance of teachers in a class has been centre of attention for most educational researcher. The quality of teaching is not only measured from qualification and knowledge of teacher but also their dedication and commitment [8]. The dominant view of an effective teacher is the teacher who possesses a broad repertoire of techniques and is able to skilfully use these techniques to meet the changing demands of the students [2].

The evaluation questionnaire has been used as instrument for data collection. It consists of quantitative and qualitative questions. The quantitative data was collected by closed-ended questions such multiple choice, while the qualitative data was collected by open-ended questions as comments and suggestions from students opinion in textual form. Faculties often have difficulty making sense of students' written comments on teaching evaluations. Although such open-ended comments are usually quite rich with observations and insights, instructors frequently struggle to draw conclusions from them.

College academic affairs management is one of the important works of college management. It is a basic work integrating management and services. It is the basis of ensuring teaching order, improving education quality, and enlarging educational scale. Their quality and working capacity will directly affect the teaching order, teaching quality, educational level, and even the reputation of the college. The performance reform of college academic affairs management personnel plays an important role on fully arousing the working initiative of academic affairs management personnel, assuring better daily instruction and operation and long-term stable development of colleges [3]. So, establishing a set of performance evaluation system is imperative. The system describes the meaning, principles, procedures and significances of feedback, so as to further improve and perfect the appraisal system of college academic affairs management personnel, and appraise the performance of academic affairs management personnel more fairly and effectively.

The feedback for this system is also called as full-circle feedback or multi-rater assessment. It means that the higher level personnel, colleagues, lower level personnel, and students rate, he himself act as raters and carry out Omni-directional appraisal to the personnel being rated from multiple angles, then through feedback procedure to realize the objective of changing the act and improving performance. This feedback is also called 360 degree performance feedback evaluation [1], omni-directional feedback evaluation or multi-source feedback evaluation etc.



International Journal of Innovative Research in Computer and Communication Engineering

(An ISO 3297: 2007 Certified Organization)

Website: www.ijirccce.com

Vol. 5, Issue 2, February 2017

II. LITERATURE SURVEY

Title 1:- Application of 360-degree Feedback in the Appraisal of College Academic Affairs Management Personnel.

Authors:- Li'ang.

Year Of Publication:- 2009

In This Paper [1] the performance appraisal system for college academic affairs management personnel is not sound. Establishing a set of scientific performance evaluation system is imperative. The application of "360-degree Feedback" in the appraisal of academic affairs management personnel is also an important content of the structural reform of college personnel management system. It describes the meaning, principles, procedures and significances of 360-degree feedback, so as to further improve and perfect the appraisal system of college academic affairs management personnel, and appraise the performance of academic affairs management personnel more fairly and effectively.

Title 2:- A Generic Feedback for Better Evaluation of Teacher Performance.

Authors :- Hamad Naeem, Jun Sang.

Year Of Publication:- 2015.

In existing educational environment, teacher's performance is playing vital role in growth of students as well as institution. The quality of instruction is basic constituent for successful learning. For better collaboration between students and teachers, it has become mandatory to introduce comprehensive performance evaluation mechanism. In modern age, information technology provides us optimal solution to evaluate teacher's performance. In this paper [2], we proposed a generic feedback model using unified modelling language (UML).the model can be easily implemented in any institutional environment due to its non specific behaviour. This model predicts better results of teachers performance using method of data mining tool. In the conclusion, we compared results of various data mining techniques and also suggesting an appropriate method for this system.

Title 3:- Teacher's Performance Evaluation Tool Using Opinion Mining with Sentiment Analysis.

Authors:- Francis F. Balahadia, Ma. Corazon G. Fernando, Irish C. Juanatas.

Year of Publication:- 2016.

The research aims to develop a teacher's performance evaluation tool using opinion mining with sentiment analysis. The study may help to identify the strengths and weaknesses of the faculty members based on the positive and negative feedback of the students either in English or in Filipino language. The proposed system [3] provides the sentiment score from the qualitative data and numerical response rating from the quantitative data of teachers evaluation. It will also graphically represent the evaluation result including the percentage of positive and negative feedback of the students. Thus, the school administrators and educators will be more aware about the sentiments and concerns of the students.

III. PROPOSED SYSTEM

1. Architectural Diagram:-

The proposed system allows the user to provide quantitative ratings, and feedback in the form of comment/suggestions. The qualitative ratings will be analyzed using opinion mining with sentiment analysis engine[3]. Following architecture describe proposed system in which application is connected through centralized database server. In order to make more generalized system, people are directly linked with application in which system administrator is responsible for managing data on server. The contents of feedback include: working performance condition of the academic affairs management personnel that be appraised; analyzing the reasons for gaining working achievements with the academic affairs management personnel that be appraised, encouraging excellent one, and helping these with worse achievements; telling them the reward and punishment condition and stating the requirements and expectation of the college[1]. The best feedback form is talking face to face. Pay attention to bidirectional communication. Communications must vary from person to person and carry out periodically.

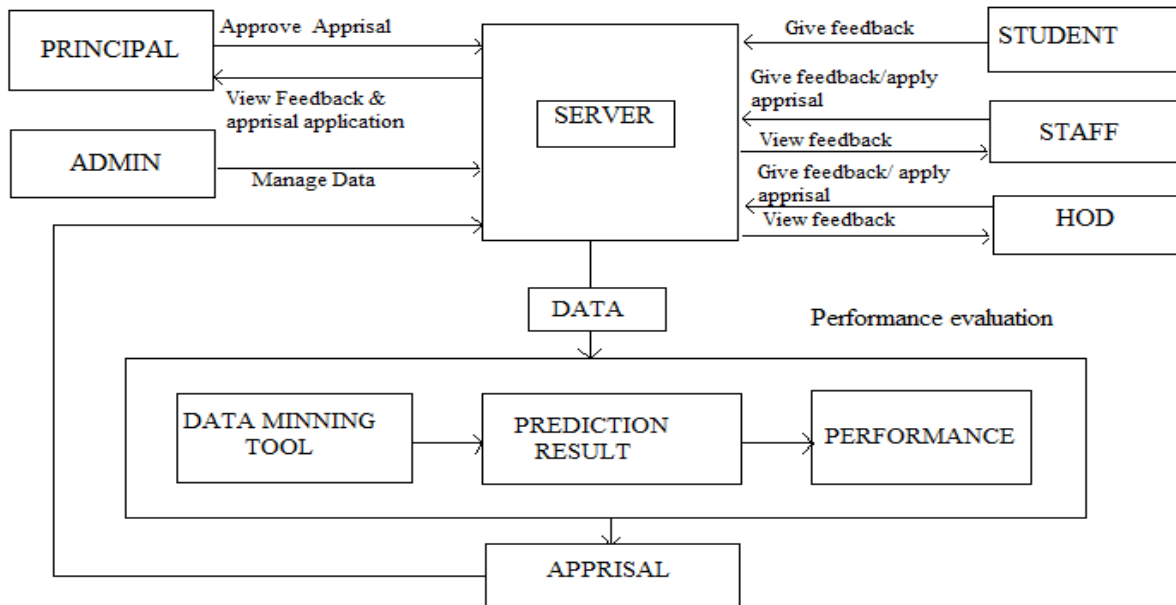
International Journal of Innovative Research in Computer and Communication Engineering

(An ISO 3297: 2007 Certified Organization)

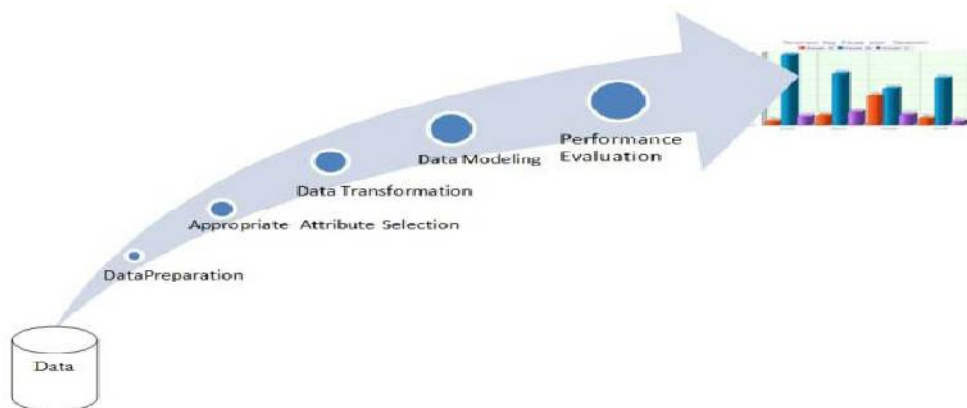
Website: www.ijirccce.com

Vol. 5, Issue 2, February 2017

Student will go for registration and then will perform feedback. Students as well as teachers also giving feedback for respected colleague. Likewise up to higher authority this process take of giving feedback to each other is done. After feedback process is completed higher authority of institute will review initial feedback results. The higher level personnel, colleagues, lower level personnel and the personnel being rated he himself act as raters and carry out omni-directional appraisal to the personnel being rated from multiple angles, then through feedback procedure to Realize the objective of changing the act and improving performance. It not only focuses on the final achievements, but also takes the behavior, process and degree of effort of the personnel into the appraisal contents, which makes the performance and achievements of the personnel be reflected objectively and completely through the performance appraisal. After determined the appraisal indexes, according to the opinion of the personnel being rated, select various kinds of appraisal subject to establish appraisal team of appraisal. Then, carry out training to raters on the contents of principle, evaluation process of appraisal accordingly.



Performance Evaluation:-





International Journal of Innovative Research in Computer and Communication Engineering

(An ISO 3297: 2007 Certified Organization)

Website: www.ijirccce.com

Vol. 5, Issue 2, February 2017

After Successful approval of feedback results by principal, system will provide the results datasets in forms of CSV format .To evaluate the performance of teachers, we took the data (16 inches) of Software School of Congqing University keeping some information about feedback and teachers. In order to select useful information from given dataset, data mining is most suitable technique. Data mining is process of converting suitable information into meaningful structure. There are various type of data mining algorithm based third party tools. In given case, Weka is best choice for using data mining classification algorithm. We are choosing J48,BF Tree and LMT decision tree algorithms for given dataset. In the end, we are also recommending appropriate classification techniques for better performance evaluation of given dataset. Fig describe the comprehensive process of performance evaluation[2].

A. Data Preparation

The dataset is provided in form of CSV format. By default, Weka data format is ARFF. Thus, the given dataset is converted from CSV format to ARFF format.

B. Choose Appropriate Attributes

Attribute selection is most challenging task for predicting performance. Given data set contain 8 attributes. Thus, it is possible that all the attributes are not employed for this purpose. Thus, remove filter is used for deleting unnecessary attributes .

C. Data Transformation

Data is converted into forms according to data mining procedure. In this phase, data smoothing is used to remove noise from data. Thus, it enhances the performance of classification methods.

D. Data Modeling

In this stage, various modeling methods are elected and applied. But for respective dataset, data modeling is achieved by using decision tree classification. Decision tree is profoundly separated into various algorithms such as J48,BF Tree and LMT. For predicting teacher's performance, these techniques use training set to create prediction model and then use test set to ensure accuracy of prediction.

E. Performance Evaluation

After apply various decision tree classification models, the performance of each model is evaluated by comparing their prediction results.

IV. CONCLUSION AND FUTURE WORK

There is a need to develop the feedback and appraisal system because teacher's evaluation is tedious work to identify and convey the concerns of the students to their teachers. On the other hand, feedback system collects teacher's evaluation information as soon as possible through a variety of ways. It can well handle the evaluation information by properly using the method of combining qualitative method and quantitative method to make evaluation judgment established on the basis of given information, which is good for improving the reliability of the appraisal of institute. Further exploration and improvement must be carried out practically and theoretically to feedback system.

REFERENCES

- [1] Li'ang, Application of 360-Degree feedback in the appraisal of college academic affairs management personnel. IEEE,2009.
- [2] Hamad Naeem, Jun Sang. A Generic Feedback for Better Evaluation of Teacher Performance. IEEE, 2015
- [3] Francis F. Balahadia, Ma. Corazon G. Fernando, Irish C. Juanatas, Teacher's Performance Evaluation Tool Using Opinion Mining with Sentiment Analysis,IEEE, 2016.
- [4] Hamad Naeem, Jun Sang. A Generic Feedback for Better Evaluation of Teacher Performance. 2015.
- [5] Li'ang. Application of 360-degree Feedback in the Appraisal of College Academic Affairs Management Personnel.2009.
- [6] Francis F. Balahadia, Ma. Corazon G. Fernando, Irish C. Juanatas. Teacher's Performance Evaluation Tool Using Opinion Mining with Sentiment Analysis. 2016.
- [7] S. Alkhafaji, B. Sriram. "Instructor's Performance: A Proposed Model For Online Evaluation ".I.J. Information Engineering and Electronic Business,2013.
- [8] J.sang, H.Naeem "A Generic Feedback System for Better Evaluation of Teacher Performance",2015.
- [9] S. Noor . Student's Perception on Good Lecturer Based on Lecturer Performance Assessment". 2012.
- [10] Li Na, Application of 360-degree Feedback in the Achievement Appraisal System of Middle and Primary School Teachers [J], Journal of Bohai University: Natural Science Edition, 2010.
- [11] D.C.V, "Evaluation of Teacher's Performance Using Fuzzy Logic Techniques", International Journal of Computer Trends And Technology, 2012.
- [12] M.Tarare, M.Manwani, A.Paidlewar,S.Maturkar,P.Chaudhari, J.V.Shiral, "Feedback Management Sysyete for Evaluation And Gererating Monthly Report" March 2014.